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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/755,937

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James A. Bailey

Bailey 6-11

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12/05/2005

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EXAMINER

LE, DINH THANH


ART UNIT

PAPER NUMBER

2816

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/755,937	Applicant(s) BAILEY ET AL. 	
	Examiner DINH T. LE	Art Unit 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-14, 16-17 and 20-24 is/are rejected.
- 7) ☒ Claim(s) 3,4,15,18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL REJECTION

The Affidavits filed 9/30/05 have been considered.

The objection of claims 13-20 is withdrawn in view of the amendments to the claims.

Claim Rejections

Claim Rejections - 35 USC § 112

Claims 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction or clarification is required.

In claim 21, it is not understood how the at least one gm cell can be adapted to be configured to have non-zero transconductance by selectively applying “two different input signals” to the first node and the second node” on lines 3-4 can be “selectively applying a single input signal to the first and second nodes”, where the different input signals, nodes and the single input signal come from, how the signals can be selected since no selecting means is recited in the claims and how this limitation is read on the preferred embodiment or seen on the drawings. The same is true for claim 23.

In claim 22, it is unclear how the common-mode signal can be “corresponding” to the signal pair. The same is true for claim 24.

Claim Rejections

Claim Rejections - 35 USC 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless B

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5-14, 16-17 and 20 under 35 USC 102 (b) as being unpatentable over Deveirman (US 5,625,317).

As the best construed, Deveirman discloses a filter circuit in Figures 4-14 comprising:

- at least one of the one or more filter sections (1001, 1002, Figure 10), each comprising a plurality of transconductor (gm) cells (302-307, 600) on a main path; and
- at least one of the gm cells (600) being configured to have substantially zero transconductance ($gm_2 = gm_{osc}$), lines 25-56, column 7 and lines 1-32, column 8, such that the filter section is oscillated at a cutoff frequency to tune each filter section.

With regard to claim 5, the at least one filter section (700, Figure 7) is adapted to be oscillated to tune other filter sections.

With regard to claim 12, the recitation "ladder filter" is read on the filter circuit as shown in Figure 6.

Response to Applicant's Arguments

The applicant argues that Deveirman does not teach the filter has one or more filter sections and at least one of the sections comprises a plurality of gm cells and one section can be configured such that this section is oscillated. The argument is not persuasive because Figures 7 and lines 25-26, column 7 and lines 1-32, column 8) discloses that the filter circuit comprising a plurality of filter sections (700, 501-503) and the section (700) is configured to have zero transconductance so that it can be oscillated.

Art Unit: 2816

The applicant argues that Deveirman's designed technique is different from the claimed invention. The arguments are not persuasive because there is nothing recited in the rejected claims about the designed technique. The section (600) is one of the gm cells of the filter which is used to provide a signal source for self-tuning the filter.

Allowable Subject Matter

Claims 3-4, 15, 18-19 and 21-24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and/or to include all of the limitations of the base claim and any intervening claims.

The claims are allowed because the prior art does not show:

- a third gm cell connected at both ends to the intermediate node; and a fourth gm cell connected between the output node and the intermediate node, wherein the third gm cell comprises a set of switches that enable the third gm cell to be configured to have substantially zero transconductance, such that the at least one filter section will oscillate; and the at least filter section comprises a tuning circuitry stored tuning control information for the at least filter section .
- the different input signal and the single input signal are applied to the first node and the second node.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


Art Unit: 2816

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DINH T. LE whose telephone number is (571) 272-1745. The examiner can normally be reached on Monday-Friday (8AM-7PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY CALLAHAN can be reached at (571) 272-1740.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DINH LE
Primary Examiner